

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraphs beginning on line 28 of page 14 through line 9 of page 15 of the substitute specification filed on October 24, 2007 with the following paragraphs.

The data multiplexing apparatus 1 in the present embodiment receives MPEG2-TSs (packet streams) of multiple channels and outputs a single multiplexed MPEG2-TS. As shown in FIG. 8, the data multiplexing apparatus 1 includes an address control unit 102 and a local CPU 108. Further, the data multiplexing apparatus 1 includes a data multiplexing unit including a channel buffer 101, an address control unit 102, a multiplexing order generation unit 103, a multiplexing order storage unit 104, a flag generation unit 105, a multiplexing total number control unit 106, and a packet output unit 107, a local CPU 108. In addition, the data multiplexing apparatus 1 includes a packet replacement unit including a packet number obtainment unit 109, an address obtainment unit 110, a null packet detection unit 111 and a packet replacement unit subunit 112.

In the present embodiment, the channel buffer 101 ~~is~~includes a packet stream storage unit described in the claims. Therefore, it does not mean that the packet stream storage unit of the present invention is limited to the channel buffer 101.

Please replace the paragraph beginning on line 18 through line 22 of page 25 of the substitute specification filed on October 24, 2007 with the following paragraph.

The packet replacement ~~unit subunit~~ 112 replaces the multiplexed null packets detected by the null packet detection unit 111 with the private data packets for output before the packets are outputted from the data multiplexing apparatus 1 according to the order stored in the multiplexing order storage unit 104.

Please replace the paragraph beginning on line 15 through line 20 of page 26 of the substitute specification filed on October 24, 2007 with the following paragraph.

Immediately after the address obtainment unit 110 obtains the starting address of the first private data packet in each block, the packet replacement ~~unit subunit~~ 112 starts replacing the null packets with the private data packets. The total number of private data packets to be replaced from the null packets are obtained by the packet number obtainment unit 109.

Please replace the paragraphs beginning on line 26 of page 26 through line 6 of page

27 of the substitute specification filed on October 24, 2007 with the following paragraphs.

Next, when the null packet detection unit 111 detects the null packets (YES in Step S13), the packet replacement-unit subunit 112 replaces, with the private data packets, the detected multiplexed null packets on the packet stream as shown in FIG. 12A inputted from the channel buffer 101, and outputs the packet stream as shown in FIG. 12B (Step S14).

The packet replacement-unit subunit 112 judges whether or not the total number of private data packets which are replaced from the null packets matches the value obtained by the packet number obtainment unit 109 (Step S15). When they match each other as a result of the judgment (YES in Step S15), the multiplexing and output of the private data packets included in the block is completed.

Please replace the paragraph beginning on line 11 through line 22 of page 27 of the substitute specification filed on October 24, 2007 with the following paragraph.

As described above, according to the present embodiment, the packet number obtainment unit 109 obtains the number of packets so as to output the private data packets in one block at a time, the multiplexing and output of the private data packet stream is started immediately after the address obtainment unit 110 obtains the starting address, the null packet detection unit 111 detects whether the outputted packets are null packets or not, and the packet replacement-unit subunit 112 replaces the detected multiplexed null packets with the private data packets for output and transmission of the packet stream. As a result, the delay of the packet stream of the private data signal in the data multiplexing apparatus 1 can be restricted to dozens of ms.